

REMARKS

The Office action of July 5, 2007, has been carefully considered.

Objection has been raised to Claim 24 on the basis of a missing word, and Claim 24 has now been amended to add the word "material" as suggested in the Office action.

Claims 29 and 30 have been rejected under 35 USC 112, 2nd paragraph. In response to this rejection, the dependency of Claim 29 has been corrected, and withdrawal of the rejection is requested.

Claims 15 through 30 have been rejected under 35 USC 103(a) over Bennett et al in view of Lopriore.

Claim 15 has been amended to recite the process of the invention in greater detail, Claim 15 now reciting that the wires are arranged in contact with each other within an electrically conductive material. This is clearly shown in the drawings, especially Figure 3 and Figure 4. The partially enclosed wires are then arranged between an anvil and a sonotrode of an ultrasonic welding device and subjected to ultrasound, which causes relative movement between the wires and between the wires and the electrically conductive material, causing deformation of the electrical conductive material. The relative movement causes the insulating lacquer of the wires to be broken away in the contact regions and a fixed connection to be formed between the electrically conductive material (see [0027] of the published application).

Such a process is not suggested by the combination of references. According to the Bennett et al reference, in which lacquered wires are joined, a metallic penetrator 18 is wrapped around the conductive members so that the conductive members (10, 12, 14) are not in direct contact. This is shown in Figures 1 and 5 of Bennett et al. The conductive members and the penetrator are then inserted into a tubular portion 20, and subjected to pressure by welding electrodes 26 and 28

of a resistance welding machine, which deforms the tubular portion, applying pressure to the ends 22. This pressure forces the sharp edges of the metallic penetrator into the bonded insulation of the conductive members. The thermal heat of the welding electrodes causes the penetrator to become heated, which in turn melts the bonded insulation from the surface of the conductive members, causing the insulation to vaporize. When this happens, the current flows through the entire structure and the conductive members melt, forming a metallurgical bond.

According to Bennett et al, not only is the penetrator (for example, a 50 mesh brass screen) required, but a tubular portion is also required, and this tubular portion must have openings such that material of the conductors to be welded and of the penetrator can penetrate the tubular portion, allowing a secure mechanical joint.

Lopire teaches the use of microwave energy to weld wires coated with a thermoplastic insulation which melts when exposed to the microwave energy. Welding of lacquer coated wires is not disclosed or suggested.

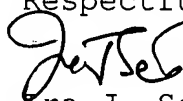
It is not known whether successful welding will occur if the resistance welding machine of Bennett et al is replaced by the ultrasonic welder of Lopire, but in any event, the combination of Bennett et al and Lopire is not what is presently claimed. According to the invention, *the lacquered wires must be in contact with each other*, and surrounded by an electrically conductive material, and when subjected to ultrasound, movement occurs which causes the lacquer to be broken away in the contact regions, and a connection to be formed between the wires and between the wires and the electrically conductive material.

Thus, the references taken in combination do not disclose or suggest placing a plurality of lacquered wires in contact with each other, surrounding the contacting wires with a

conductive material, and subjecting the surrounded wires to ultrasound in order to cause a relative movement to cause the enamel of the wires to break away and permit a fixed connection to be formed. Withdrawal of this rejection is requested.

In view of the foregoing amendments and remarks, Applicant submits that the present application is now in condition for allowance. An early allowance of the application with amended claims is earnestly solicited.

Respectfully submitted,



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